

RURAL Highlights

RURAL ELECTRIC CONVENIENCE COOPERATIVE CO. — Auburn, Ill. 62615

Telephone: 217/438-6813

Volume 29

April 1978

Number 4

RECC Secures \$4.5 Million Disaster Loan

Easter Ice Storm Devastates Your Cooperative



These linemen from Western Illinois Electrical Coop., Carthage, helped your RECC line crews restore service to nearly 3,200 members who were without power following the Easter ice storm. See related stories and photos on pages 2-5.

what to do when the power is off

If your power goes off, we offer these suggestions:

1. Check your fuses or circuit breakers.
2. Check your meter pole. If you have breakers, make sure they are in the "on" position.
3. If you still have no power, check with your neighbor to see if he has power.
4. Call the appropriate number below and report what you have found.
5. If you cannot reach your outage reporter or if one is not listed for your telephone area, call your cooperative at 438-6813.
6. Please give the person who answers the member's name as it is billed, and other information requested.

This is a complete list of outage reporters:

Cooperative Office438-6813
 Richard Treat, Chatham . .483-2098
 Eugene Beckey, Edinburg .623-5782
 Wayne Fuchs, Farmersville .227-3257
 Melvin Bolton, Girard . . .627-2294
 J. F. Bandy, Litchfield . . .324-2497
 Stanley Otten, Modesto . .439-7363
 Henrietta Ladage, Divernon .628-3479
 Harold King, New Berlin . .488-7061
 Leslie Johnson, Nokomis . .563-8608
 Wayne Overbey, Palmyra . .436-2108
 Wheeler Sloman, Pawnee . .625-7184
 Francis Marten, Raymond .229-3298
 Ralph Gesell
 Taylorville-Kincaid237-4406
 Richard Downing, Taylorville.824-2980
 Dale Kime, Virden965-3990
 Mrs. Carl Stewart, Waggoner .227-3664
 Loren A. Rhea, Waverly . .435-9520
 Joe Pope, Harvel229-3380
 Robert Hall, Loami624-3681
 Perry Broughton, Pawnee . .625-7449
 Mrs. Allen F. Gregory,
 Rochester637-7687
 Clarence Whitler, Girard .627-2007
 Albert Boeker,
 Morrisonville526-3378

BOARD OF DIRECTORS

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 assistant secretary-treasurer
 Harold Bruntjen
 Lynn McTaggart
 R. Halden Funderburk
 Robert Burtle
 Loren A. Rhea
 Roy D. Goode, manager

Manager's View

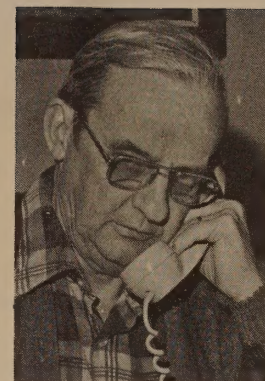
Requiem for the System, Eulogy for Your Linemen

Good Friday, 1978, was a day that will not be forgotten by anyone living in or associated with Central Illinois. As you read this, the frustration, the anguish and the painful experiences will be a tragic memory.

Your electric cooperative system was devastated. Thousands of poles were damaged or destroyed. The reports began to come in early Friday morning, March 24th—poles across the road, lines down, substations knocked out. Your Cooperative system was ravaged by ice. Still reeling from the ice storm of February 13th, your crews set about the task of restoring service—against insurmountable odds. Lines continued to fall Easter Sunday and herculian efforts were in vain as ice continued to build and wreck the lines that had been rebuilt.

It was evident at the outset that extra crews would be necessary. The emergency call went out and the response was great. All our neighboring cooperatives were struck by the ice storm, so your Cooperative went outside the area for additional men and equipment.

Twenty electric cooperatives from Illinois, Indiana and Iowa rushed to provide men and equipment to restore your service. Three private contractors, representing Iowa, Illinois and North Carolina, were able to send crews into our area to help rebuild your electric distribution system. Despite icy conditions, hazards and the agony of the destruction, the men tackled the job—long hours, little rest, no hot food for days and only cold sleeping accommodations available because the electric power was off



Roy D. Goode

throughout the entire area. Slowly and painfully, your system began to come to life. Dog-tired linemen were bolstered as they saw their efforts began to bear fruit.

We cannot say enough for your own crews—to try to single out any one would be unreal. The entire force that, under normal conditions, must operate the system was called upon to take over and rebuild an electric distribution system that was 40 years in the making. Swift response by your own co-op staff started men, equipment and materials rolling in to help. Truckloads of poles, hardware, transformers and related materials started rolling in by night and day—hour after hour, 24 hours per day. Suppliers were great; keeping men at their warehouses long hours to get vital supplies on the road that your cooperative desperately needed. Rumors were rampant that necessary construction materials were not available—this was not the case—no construction was held up because of lack of materials.

You, the members, were very understanding and concerned. Your patience was outstanding in general. Some members became frustrated and emotional when they could see lights on all around, but were still without power themselves. These instances are unavoidable, as lines must be restored that provide the most power to the majority of members. Many times we heard the story that only one wire was down or only a couple of poles are down some place or something that would only require 20 minutes to repair. We hope that you all realize that with thousands of poles to be replaced, the main lines had to be energized initially. Perhaps only one or two poles were down in your immediate area, but maybe a mile of poles was down before the line got to your area.

REBUILD

Now comes the time to rebuild. With determination and faith, it will be done. Forty years were required to

(continued on page 3)

RURAL HIGHLIGHTS

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Letters of Thanks from RECC Members Following the Easter Ice Storm, Mar. 24

Please extend our heartfelt thanks to all of the REA employees and others from all over that have come to help us. Again thanks.

**** Dr. William Kessler Family

My electricity was restored on Monday, April 3, at 5:00 P.M. Thanks for a job well done.

**** Cassie Eigenmann

Just a line to say what a great job you are doing for such terrible damage you had in our area—Our wheel is still not turning, but we don't mind at all. May God bless all of you at REA for your patience and courage.

**** The Skinners (Don, Loami)

I greatly appreciate all the men working to get the power restored so quickly at my home at the time of my husband's death. Your kindness and understanding will be remembered always.

**** Katsy Roggero

Thanks for the hard work to restore our power. Thanks again.

**** Dave Baker

Congratulations on your swift recovery of our power. You are to be commended along with your crews.

**** Bill Harryman.

Thank you all so much for the return of our electricity. When I saw all the damage I didn't believe you could do it so quickly.

**** Ruth Roberts

Thanks for doing such a grand job under such difficult circumstances.

**** Alice and Dennis O'Geary.

God bless all of the REA men for working so hard to help get the power on.

We just want to add our thanks to all the rest of your customers for the quick and wonderful way you all handled the big disaster.

**** Bud and Vera Morris

Many thanks for getting the power back on. We are enjoying electricity again. We feel like we are living again.

**** Mrs. Gerald Edwards

Just a word of thanks to the guys who have worked so hard to restore power. You're a good group.

**** Ken Lovely

Thanks to each of you for all you've done. We didn't know that you were so important.

**** Gene and Helen Remington

Wrote this check by candlelight. This will make us appreciate our cooperative more. Hope it won't be long before I can switch on a light.

**** Rachel Harvey

I would like to express my appreciation for the fine job your crew did in our area. We know what a tremendous job you all had to do.

**** Edward W. Taylor.

I have nothing but the highest praise and admiration for the Manager, Staff and Work Crews of Auburn Rural Electric, in their untiring efforts to restore power to their many customers. I know it was a monumental job but everyone persevered despite extreme fatigue and many hardships and reverses. I'm sure I express the sentiments of many when I say a heartfelt thank you.

**** Mary R. Burtle

These are some of the letters received but we must not forget the numerous phone calls from members thanking us when their power was restored. These are too numerous to record, but we certainly appreciated each one of them.

INVOCATION

"Almighty God, assembled in this room are powerful people in this community, all of whom have known what it is to be powerless.

"In recent days we have discovered our dependency upon technological forces, but we have also rediscovered our dependency upon one another.

"We pause to offer thanks for all of those forces and individuals who worked long hours to restore patterns of power to this community, this county and this area. We thank Thee for those from Rhinelander and Missouri, and Iowa, who left their homes and families and came to minister to the needs of this stricken community and area.

"We thank Thee that branches that have known the sound of chain saws will soon once again know the songs of robins. But never let us forget, O God, that no matter how powerful we think we are, we remain powerless without the gifts of Creation and the great mercy of Your power and Your love. Amen."

Dear Roy:

I thought you might be interested in the above invocation which was given at our Rotary meeting following our ice storm a couple years back.

We feel sorry about your loss and certainly hope things will be back in order soon.

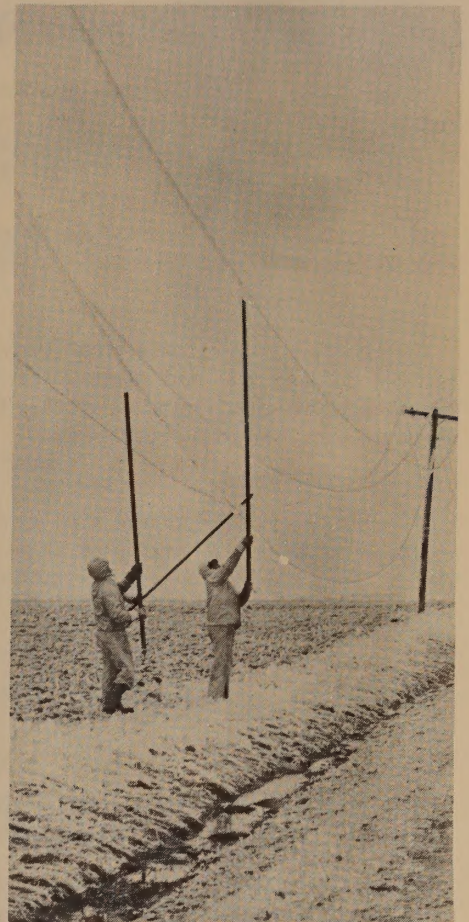
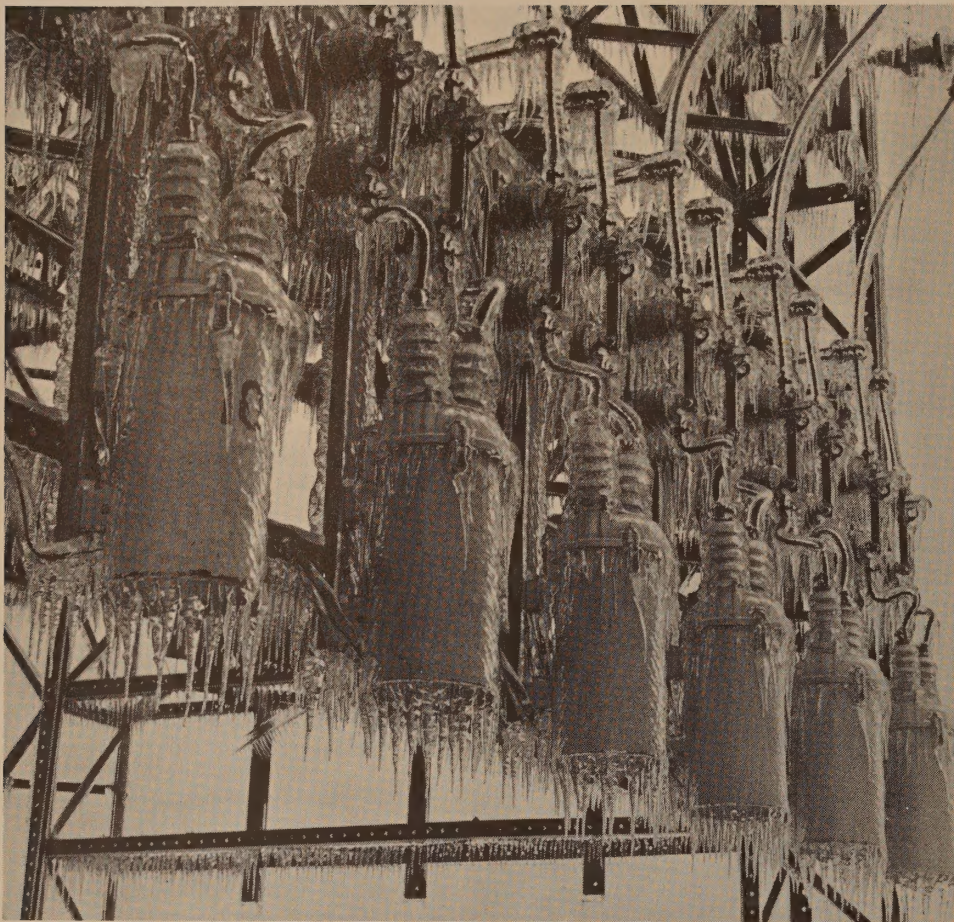
Sincerely yours,
Bill Ramsey

Manager's View (cont.)

build your system. In one weekend, it was a shambles. It has been "propped" up hurriedly to restore electric service to all members. The Rural Electrification Administration reacted promptly to your board of directors' request for financial assistance. Positive action by REA was swift. Loan funds were approved for your Cooperative to begin immediately to rebuild.

It will take a long time. It will require a lot of money and determination. But it will be done. The loans will be spread out over a 35-year period, so the impact will not be as great as if we had to pay it all back tomorrow. We expect to do some careful planning when rebuilding to most efficiently use the available funds.

Thank you all for your patience and understanding. Your cooperative staff appreciates all the cards, letters and telephone calls of appreciation that were received.



ICE STORM CHRONICLE

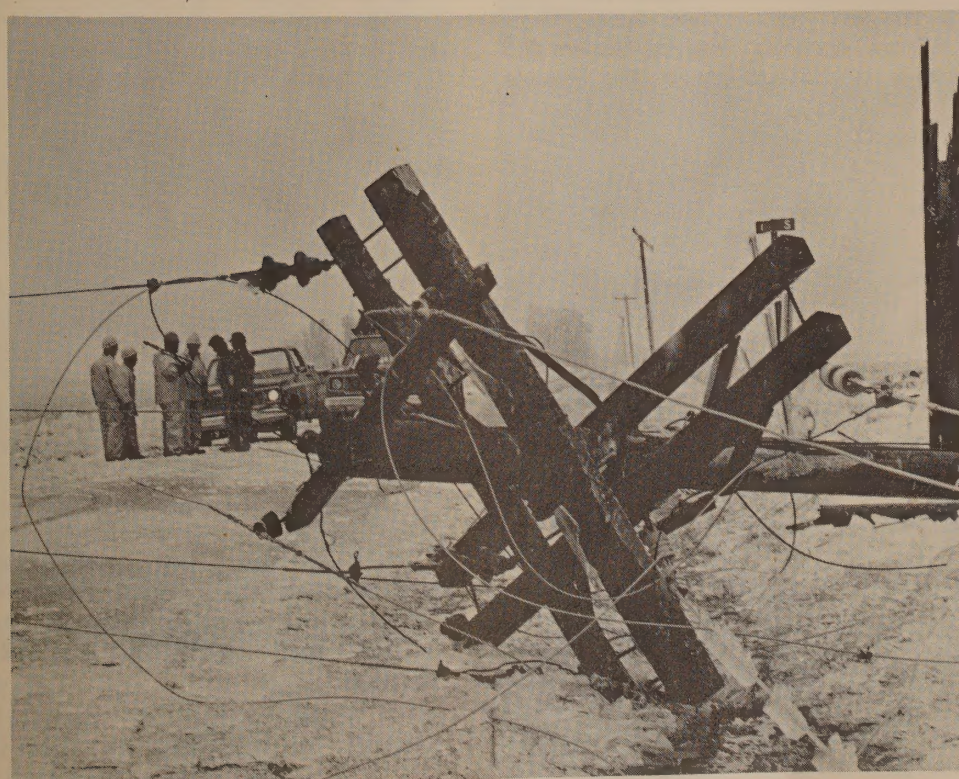


Top left — Heavy ice began building up early on Good Friday as evidenced by these transformers at the Girard substation. Above — Your linemen made a desperate attempt to save this line near the Glenarm substation. Left — This crew from Western Illinois Electrical Coop. at Carthage was sent to help your cooperative restore power during the emergency. Below — Southwestern Electric Cooperative, Greenville, sent two crews to aid our exhausted linemen in reconstructing your devastated distribution system.





Above — When the ice melted, some cooperative members organized in volunteer groups to help linemen rebuild the system. Here, RECC Employee James Ketchum (left) talks with volunteers, from left; Perry Broughton, Ron Deal, Lamar Fesser and Donald Skinner who helped “clean up” damaged line sections south of Pawnee. Right — Three area farmers “pitched in” to help cooperative linemen reset this pole in the Pawnee area. Below right — Melvin Sloman (left) and Don Skinner were among the member-volunteers helping to salvage some of your cooperative’s electrical hardware from damaged poles and lines. Below — With rain still falling, four linemen report damage of a three-phase line near the Glenarm substation to RECC Office Manager Dean Fuchs and Operating Superintendent James Killam (far right).





Power Use and You

by Wayne Fuchs,
Director of Member Services

The Easter weekend ice storm of '78 will be talked about by our members and the 150 men from cooperatives of Illinois and surrounding states for the rest of their lives.

We had the pleasure of working with several of the crews sent from other cooperatives. Men who work with electric high lines have a unique profession. They are most professional in all aspects of their work and they are certainly the most well-trained as far as safety is concerned. Many, many hours are spent in safety training and even linemen with 30 years' experience are still required to receive safety training every month. Believe us, you can see this training paying off in the conditions we recently had with the ice storm. These men knew what they had to do and nothing stopped them—not the weather—not darkness or anything else—they just kept going until your electric service was restored.

Yes, the safety training of linemen really pays off—with 150 men working to rebuild the lines, no one was hurt. We are thankful for that.

GENERATORS

There were hundreds of generators being used during the outage. Members were very cautious in hooking these generators up so that there was no feedback onto our lines.

If any member would like more information on the proper installation of generators, your cooperative personnel are available to help you with the installation.

AIR CONDITIONERS

The air conditioning season is near. Now is the time to check out your air conditioner for a good cleaning and a new filter. Window air conditioners should be taken out of the window and cleaned for better efficiency.

Thanks again for all your patience and understanding during the ice storm.

Standby Generators Are Good Insurance

Electricity plays a major role in farm operations. Unfortunately, the importance of electricity is seldom realized until a power outage occurs.

An outage can be critical, especially to highly specialized farming operations. Without ventilation, hogs in a confinement finishing barn may suffocate and without brooder heat, baby chicks may freeze. Likewise, a dairy farm without operational milking machines and coolers has a serious problem. In the home we depend on electricity for lights, heat, cooking, refrigeration and water.

Electric standby units assure electricity for the farm operation during periods of power failure. Power failure may be caused by natural disasters such as floods and snow storms, by sleet storms, and possibly even by nuclear attack. Purchasing electric standby units is encouraged by electric power suppliers.

The two most important considerations when sizing standby units, are the size of the largest motor to be operated, and the total load that must be operated at the same time. The following is a brief review of the features and capacities of the various sizes:

8KW — For the farm with light loads. Powers the farm home, portable tools, and many small motor loads. Will safely start a 3 hp motor under full rated load, and will operate a combination of over 7 hp motor load.

15KW — Will power lights, heat, milkers, waterers, feeders, coolers and other electric tools on the average

farm. Will safely start a 7 and one half hp motor and will operate a combination of over 13 hp motor load.

18KW — for the larger farm with large motors or large confinement buildings. Will start a 10 hp motor, and operate a combination of over 16 hp motor load.

25KW — A big tractor powered power plant for large farms. Will start a 17 hp motor load and operate a combination of over 20 hp motor load.

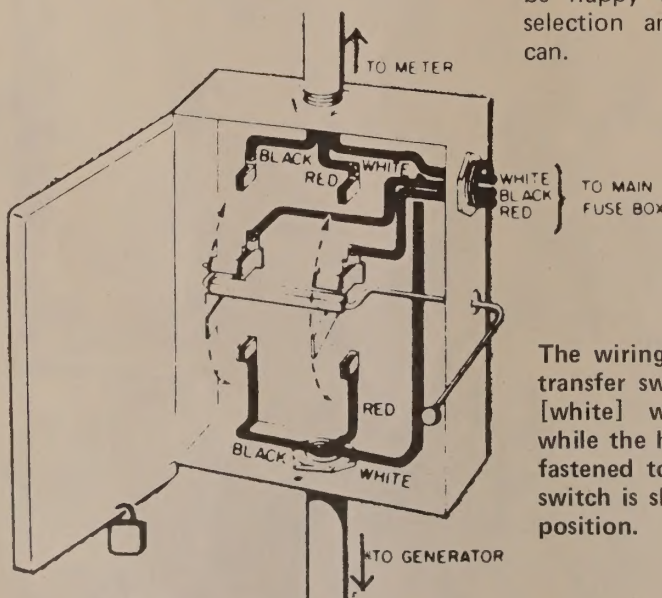
30 KW and 40 KW units are also available for the extra large demand for standby equipment.

Before the installation and operation of standby motor generating units, your Cooperative should be advised. Serious safety problems are involved in the operation of such equipment. Proper switch gear must be installed.

The National Electrical Code requires that a standby unit be connected so that an accidental connection between the standby electrical supply and normal electrical supply cannot occur. The double-throw transfer switch fulfills this requirement. Use of transfer switches prevents power from feeding into the transformers and endangering the lives of linemen who may be repairing the line. They also protect against standby unit burn-out caused by current feeding back into the unit upon restoration of power.

We also recommend that if you have a standby unit, that you operate it a least twice a year to make sure it is functioning properly.

We want to again emphasize that you must install a manual double throw transfer switch before you can use these standby units. If you would like to have information concerning the installation of standby equipment, the Member Service Department will be happy to give you any help in selection and installation that they can.



The wiring of a typical double throw transfer switch. Note that the neutral [white] wires are fastened together while the hot [red or black] wires are fastened to the switch terminals. The switch is shown in the neutral or open position.

Electric Cooperators Hold First Committee Meeting

The first quarterly meeting of your Cooperative's "Electric Cooperators" Committee was held on March 16, 1978.

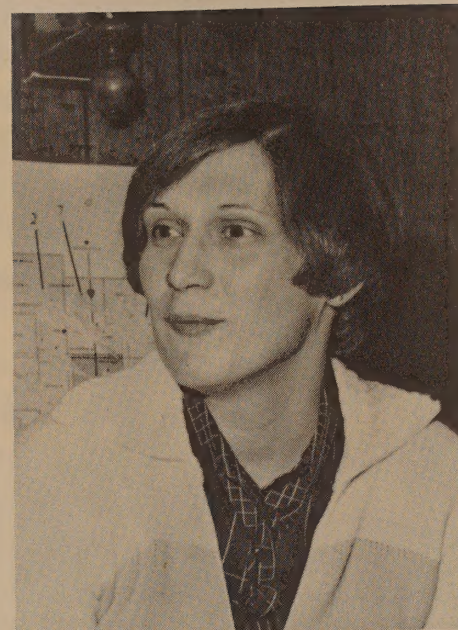
Mrs. Clark Germann, president of the Electric Cooperators, presided at the meeting. Reports were delivered by Board President Stanley Otten, Manager Roy D. Goode and Member Services Director Wayne Fuchs.

Greg and Pam Boesdorfer were present. They reported on their attendance at the NRECA Annual Meeting held in Las Vegas, Nevada, in February, 1978. Greg is past president of the Electric Cooperators. Greg and Pam were voted the Cooperators' Couple of-the-Year for 1977.

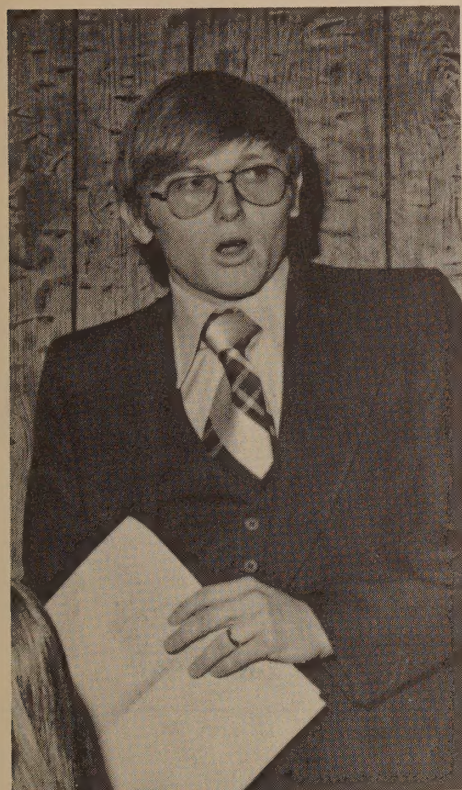
The second quarterly meeting will be held on June 1, 1978 at the Cooperative's headquarters. The Group will tour the headquarters and

be instructed on the operations of your electric distribution system.

Below — Mr. and Mrs. D. Kenneth Eggimann, representatives from District #3 appointed by Director Lynn D. McTaggart, Pawnee.



ABOVE: President Germann conducting meeting.



Above — Greg Boesdorfer giving report

Right — Mr. and Mrs. Chester Timmons, Jr., representatives from District #5 appointed by Director Loren A. Rhea, Waverly.

April 1978



Hotpoint FACTORY REBATE!

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UP TO \$50 CASH SAVINGS
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Offer applies April 1 to May 31, 1978 on selected Hotpoint quality appliances shown.

\$50 CASH
FACTORY
REBATE!



Hotpoint

- ☐ Deluxe 20.8 cu. ft. no-frost refrigerator-freezer
- ☐ Adjustable meat storage
- ☐ 5 Split-adjustable glass shelves
- ☐ 5 Adjustable door shelves
- ☐ Energy saver switch.

Model CTF21GW

\$25 CASH
FACTORY
REBATE!



Hotpoint

- ☐ Deluxe self-cleaning 30" oven-range
- ☐ 3 Plug-in & 1 stay-up 3-in-1 "Power-Saver" Calrod® surface units
- ☐ Digital clock
- ☐ Full width cook-top lamp.

Model RB747V

\$50 CASH
FACTORY
REBATE!

MICROWAVE
TOP OVEN

SELF-CLEANING
BOTTOM OVEN

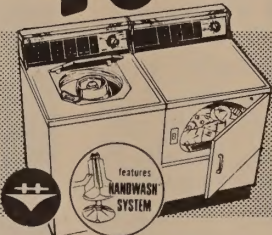


Hotpoint

- ☐ Deluxe 30" hi-lo oven-range
- ☐ Microwave oven top, cooks by time or temperature
- ☐ Self-cleaning oven on bottom, digital clock
- ☐ Automatic oven timer.

Model RH966G

\$40 CASH
FACTORY
REBATE
ON THE PAIR*



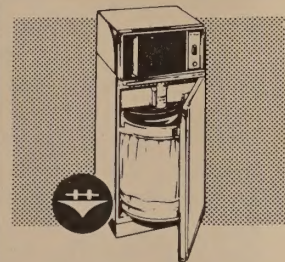
Hotpoint

- ☐ Deluxe top-of-the-line washer with 2 agitator Hand-wash® System
- ☐ Deluxe dryer with automatic Sensi-Dry™ and poly-knit cycle.

Washer Model WLW5704T Dryer Model DLB2654T

*\$20 on washer only if purchased separately.

\$20 CASH
FACTORY
REBATE!



Hotpoint

- ☐ Trash compactor reduces trash volume by approximately 80%
- ☐ Handy kitchen helper!

Model HCH611

\$20 CASH
FACTORY
REBATE!

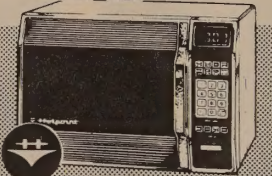


Hotpoint

- ☐ Deluxe Potwasher model
- ☐ 12 Cycle built-in dishwasher
- ☐ PowerScrub® cycle
- ☐ Lift-A-Level® upper rack
- ☐ Sani-cycle
- ☐ Crystal Clear™ rinse dispenser.

Model HDA912

\$25 CASH
FACTORY
REBATE!



Hotpoint

- ☐ Deluxe microwave oven with solid-state touch controls
- ☐ Cooks fast by time or temperature
- ☐ Cooks slow with automatic simmer dish.

Model RE944V

\$20 CASH
FACTORY
REBATE!



Hotpoint

- ☐ Deluxe 10 cycle portable potwasher dishwasher, converts to a built-in when ready
- ☐ PowerScrub® cycle
- ☐ Energy Saver Dry cycle
- ☐ Work surface top.

Model HDB877



**CUSTOMER CARE
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Fast, Dependable Service

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RECC Gets Advance on REA Loan

RECC Manager Roy Goode, shown at left in photo, presents Office Manager Dean Fuchs a check for \$1-million. This check is part of a loan from the Rural Electrification Administration in Washington, D.C., to help your cooperative pay the immense costs of restoring electrical service to members following the severe Easter Ice storm. This loan will also be used to help finance the near-total reconstruction of your cooperative's distribution system.

Your cooperative's board of directors foresaw the monumental costs involved in recovery from the Easter ice storm and authorized application for the REA loan in the amount of \$4.5-million as soon as REA announced that funds would be available.

The first part of the loan was used to finance temporary restoration of electric service and related costs such as wages for linemen from other cooperatives and out-of-state electrical contractors who helped your line crews during the emergency conditions. The remainder of the loan will be used to finance reconstruction and replacement of temporary lines. The bulk of this reconstruction work is expected to take many months, perhaps years.

REA acted quickly on April 7 to make this type of emergency financing available to your cooperative and other Illinois electric cooperatives that suffered severe damage during the ice storm. This loan will be repaid to REA over a 35-year period at an interest rate of two percent.

At right—Close-up of \$1-million check—part of \$4.5-million REA loan earmarked to finance reconstruction of your cooperative's system.



what to do when the power is off

If your power goes off, we offer these suggestions:

1. Check your fuses or circuit breakers.
2. Check your meter pole. If you have breakers, make sure they are in the "on" position.
3. If you still have no power, check with your neighbor to see if he has power.
4. Call the appropriate number below and report what you have found.
5. If you cannot reach your outage reporter or if one is not listed for your telephone area, call your cooperative at 438-6813.
6. Please give the person who answers the member's name as it is billed, and other information requested.

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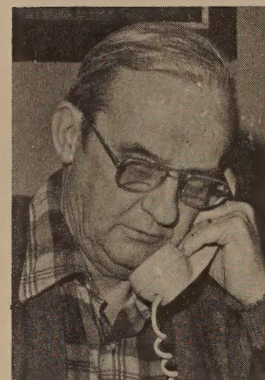
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 Rochester637-7687
 Clarence Whitler, Girard .627-2007
 Albert Boeker,
 Morrisonville526-3378

BOARD OF DIRECTORS

Stanley Otten, president
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 Harold Bruntjen
 Lynn McTaggart
 R. Halden Funderburk
 Robert Burtle
 Loren A. Rhea
 Roy D. Goode, manager

Manager's View

Co-op Alive and Well Despite Winter Obstacles



Roy D. Goode

The winter of '77-78—much has been said; much has been written; many and varied experiences have been shared by all of us in this area. We don't like to keep reminding you of all the problems and challenges that your Cooperative has experienced. Tornadoes, snow, cold, ice, vandals, thunderstorms—all have contributed to a frustrating situation. Yet your Cooperative is very much "alive and kicking."

The long coal strike has caused an increase in your power cost adjustment over the past months. The coal strike was ended just prior to our latest icy disaster, and perhaps the impact of higher fuel prices on your electric bills was dimmed in the memory. Much of the increased power cost adjustment on your electric bills was created by the coal strike that lasted for months. To replace coal, more expensive fuels were used by our power suppliers and as a result, the fuel adjustment increased. We are now feeling the impact of that increase.

Financing Ice Storm Damage

The Easter weekend ice storm that destroyed and damaged most of your Cooperative's lines caused millions of dollars of damage.

Your Cooperative area was the most severely damaged territory in a 24-county area. Thousands of poles were broken, conductor was destroyed in many areas, resulting in monumental costs to rebuild and

rehabilitate your system.

No federal disaster money is available for us. For some reason, known best to the decision makers in our nation's capital, our area was not declared a disaster. Let's hope we don't have a "real" disaster if that's true.

However, your Cooperative was fortunate in one respect. The Rural Electrification Administration (REA) quickly approved a \$4.5-million loan to restore and rebuild your electric system. This is a loan, **not a grant**, but the lowest possible REA interest rate of two percent was applied. The loan is to be repaid over a 35-year period.

The \$4.5 million is a lot of money in anyone's book. However, the impact of \$4.5 million at two percent interest over a 35-year period will not have a tremendous impact on your electric bill. It isn't going to be repaid immediately. Rumor has it that electric bills will increase up to 70 percent as a result of the ice storm—**not so**. Over a 35-year period, the loan will not make a tremendous impression on the electric bills of 5,000 Cooperative members.

In fact, none of the costs of this last winter will be felt for some time. It will be at least three years before any noticeable effect is realized because of a three-year deferment on the principal repayment schedule.

Annual Meeting

Your Cooperative's 1978 Annual Meeting will be held in Waverly at the school gymnasium — Saturday, August 26, 1978. Plan to attend. There will be bargains, prizes, food and a business meeting.

Meet your employees and directors. It's your meeting and it's not too early to mark it on your calendar.

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Farmers Home Loans Available for Weatherizing

Your electric cooperative has agreed to work with the Farmers Home Administration (FmHA) to make loans available to members for weatherizing their homes.

Advisors will help you fill out the application, decide how much and what kind of insulation and other weatherization work you need, get a contractor to do the work and inspect it when it's completed to make sure it's done properly.

The maximum loan is \$1,500. Depending on the amount borrowed, members can take up to five years to repay the loan. Payments are included in the statement for the monthly electric bill. The interest rate is currently eight (8) percent.

Improvement materials covered by the loan include: insulation, caulking and weatherstripping materials, storm windows and doors and other ways of "weatherizing" your home.

HOW TO QUALIFY

The house must be a permanent residence owned by the person applying for the loan.

Your adjusted family income can be no more than \$15,600. (To figure adjusted income, add the incomes of all the residents over 18 years old; subtract five (5) percent of the total, then subtract \$300 for each dependent child.)

The house with its improvements, must be safe and sanitary.

Conservation Program Gets Underway



The scarcity and high price of energy has brought questions from many of you about what you can do about the problem. Your electric cooperative wants to help you get the most for your energy dollar.

With this in mind, your cooperative has begun a complete conservation program.

Among the services available to you under this program are home energy audits and "weatherization" loans for improving home insulation.

Upon request, a conservation advisor will inspect your home and make suggestions for making it energy-efficient. In making the energy audit he will take into consideration the structure of the house and existing insulation, your energy-use habits and the number of persons in the home.

After studying your specific energy needs, the conservation advisor can advise you of the measures you should take to improve your energy use. He can also help you apply for a Farmers Home Administration improvement loan to upgrade your home's insulation, if you want it.

A survey of members last year indicated that nearly 60 percent thought it was "extremely" or "very" important for their cooperative to provide design and installation service to better light, wire, insulate, heat and cool their premises.

Of these same members, 78 percent judged conservation as "extremely" important, while 35 percent said they were "less than satisfied" with their cooperative's efforts to help members conserve.

Conservation measures cannot effectively be massed communicated; they must be handled on an individual basis to be effective.

If you would like to have your home checked by a qualified conservation advisor, or if you want to find out how you can make better use of the energy you consume, please fill out the form at the bottom of this page and send it to: Member Service Department, Rural Electric Convenience Cooperative, P.O. Box 9, Auburn, IL 62615.

If you are interested in the energy audit program, cut out this form and return it to: Member Service Department, Rural Electric Convenience Cooperative, P.O. Box 9, Auburn, IL 62615.

☐ I would like more information mailed to me.

☐ I would like for someone to visit my home to discuss conservation needs, but I understand that all such visits will have to be scheduled.

Name _____

Address _____ Town _____ Zip Code _____

Phone Number _____ Account Number _____

Best Time To Contact Me _____

Own Home ☐

Rent ☐

Mobile Home ☐

Residence ☐

(Please Check)

You CAN Do Something About Your Electric Bill

Electric bills are up . . .

But so are costs for all forms of energy.

By becoming a Meter Monitor you can chart changes in your family's lifestyle that will enable you to live within your energy budget. Here's how:

Using our handy Meter Monitor Chart, take a few minutes each day (preferably at the same time) and jot down the reading on your electric meter. If possible, begin your readings on the "service to" date noted on your last bill.

By subtracting the previous day's reading from the current reading each day, you get the number of kilowatt-hours used during that 24-hour period. By adding the daily figures into a weekly total and the weeks into a monthly total, you can see

how much—and when—your family used power during that monthly billing period.

Your electric meter doesn't lie. When it records more electricity being used, try to find out why by looking at your family's activities during that period . . . was the air conditioner on more than normal? Were you entertaining guests? Was it a wash day? See what activities, if any, can be altered to conserve energy . . . and save you money.

Know Your Co-op's Billing Cycle

Did you realize that you are one month behind on your billing cycle, and you can use this to your advantage in budgeting for the electric bill? You read the meter on the day you receive your bill (usually near the 1st day of each month), however you are not billed for that reading until the 1st day of the following month. In addition, the bill is due (net amount) by the 10th of the month. In other words, by monitoring your consumption you would have some idea how much the bill would be for that month, and would have the 30-day period to budget for payment for that month's consumption.

The important thing is to learn your billing period and work within that time frame.

For ways to conserve energy and control your electric bill, contact your local electric cooperative office.

Budgeting for your Electric Bill

By using the Meter Monitor Chart, you can begin budgeting for your electricity costs.

Take the total monthly KWH usage figure from your last electric bill and divide it into the total dollar amount of the bill for the same period.

This will give you the average cost per kilowatt-hours (KWH):

$$\frac{\$ \text{ Amount of Electric Bill}}{\text{Total KWH Used}} = \text{Average Cost per KWH}$$

Next, take the monthly total KWH figure from your Meter Monitor Chart and multiply it by the average cost per KWH. This will give an estimated dollar amount for budget purposes:

$$\text{KWH Number} \times \text{Average Cost per KWH} = \text{Estimated \$'s of bill}$$

This figure will vary from month to month due to changes in fuel adjustment costs and the amount of electricity your family uses. Add an extra \$10 for a cushion and your figure should be close.

How to Figure Your Cost of Convenience

Electricity is like a hired hand. It does jobs as assigned. And only as assigned. Just as you incur no labor expense until you hire a hand, so you incur no electricity expense until you turn on an electric appliance.

With increased costs for electricity, knowing how much it costs to operate an appliance can help you decide in advance whether to use it and how much to use it.

On page 5 is a table of approximate costs to operate a number of appliances. You might like to keep this handy for reference.

Elsewhere on this page are instructions for computing the operating cost of any electric appliance. While the

METER MONITOR CHART

END OF MONTH READING _____ KWH USAGE _____

AMT = $\frac{\$}{\text{KWH}}$ (average cost per KWH) _____

Note: To obtain daily KWH usage, subtract previous day's reading from current day's reading

Daily Reading	KWH Used Daily	KWH Weekly
1		
2		
3		
4		
5		
6		
7		
Weekly total		
8		
9		
10		
11		
12		
13		
14		
Weekly total		
15		
16		
17		
18		
19		
20		
21		
Weekly total		
22		
23		
24		
25		
26		
27		
28		
Weekly total		
29		
30		
31		
Extra Days Total		
MONTHLY TOTAL		

Monthly Total KWH Usage $\times$ Average Cost Per KWH = Estimated Bill

Budget Cushion
Budget Figure

mathematical formulas may look formidable at first glance, you'll find them simple procedures as you use them.

A little time with these and a little thought before flipping a switch can have a favorable effect on your electric bill.

Figuring Cost of Convenience

The cost of operating an appliance depends on three factors: 1) The wattage of the unit, usually found on the serial plate; 2) the length of time the unit is operated and 3) the cost of electricity per kilowatt-hour.

These are the formulas for calculating the cost to operate any appliance:

To determine your average cost per kilowatt-hour:

$$\text{Avg. KWH Cost} = \frac{\$ \text{ Amount of Electric Bill}}{\text{No. of KWH used}}$$

Example:

$$\frac{\$60}{1200 \text{ KWH}} = 5 \text{ cents per KWH}$$

To determine how many KWH are required to operate an appliance and cost of operation for a specified time:

$$\text{KWH Use} = \frac{\text{Wattage} \times \text{Hours (or fraction of hour)}}{1000 \text{ Watts}}$$

$$\text{Cost} = \text{KWH use} \times \text{Cost per KWH}$$

Example: Using a 1500-watt microwave oven 30 minutes at a cost of 5 cents per KWH.

$$\text{KWH Use} = \frac{1500 \text{ Watts} \times \frac{1}{2} \text{ hour}}{1000 \text{ Watts}}$$

$$= .75 \text{ KWH}$$

$$\text{Cost} = .75 \text{ KWH} \times 5 \text{ cents per KWH}$$

$$= 3\frac{3}{4} \text{ cents}$$

Per-Month Refrigeration Operating Cost Estimates

Refrigerator and freezer-operating costs vary due to differing lifestyles. The cost is affected, too, by the number of times the doors are opened, the capacity (or size of the unit), and the defrost system. Therefore, it is not possible to anticipate what an hourly cost would be. Listed here are estimated monthly usages, minimum and maximum, compiled by the Association of Home Appliance Manufacturers.

	Manual Defrost		Automatic Defrost	
	min.	max.	min.	max.
Refrigerator-Freezer				
12 to 15 cu. ft.	\$3.38	\$5.40	\$4.95	\$7.34
17 to 20 cu. ft.	—	—	4.50	10.94
23 to 26 cu. ft.	—	—	6.21	12.06
Refrigerator				
10 cu. ft.	2.03	2.70	—	—
15 cu. ft.	2.03	3.29	—	—
Freezer				
10 cu. ft.	3.38	7.79	7.79	8.10
15 cu. ft.	4.19	6.30	5.85	8.91
20 cu. ft.	3.74	6.89	6.75	8.78

Estimating Water Heater Costs

It's generally accepted that one kilowatt-hour of electricity will heat four gallons of water 100 degrees. At an average cost of five cents per kilowatt-hour, that figures out to 1¼ cents a gallon. To figure the cost of heating the water you and your family use, multiply the number of gallons you use by your cost per kilowatt-hour.

AVERAGE COST OF OPERATION

AVERAGE COSTS OF OPERATION

• This table is based on average wattages of appliances and an average kilowatt-hour cost. To understand the "hourly cost" column, remember that .05 is 5 cents and .005 is less than 1 cent.

This cost of operation table is based on one hour's usage. To determine the cost, simply multiply the hourly cost by the number of hours on, or the fraction of an hour on.

Appliance	Typical Wattage	Hourly "On" Time	KWH Used	Hourly Cost at 5¢ per KWH
Air Cleaner	50	1 hr	.05	.0025
* Blanket	175	½ hr	.09	.0045
Blender	300	1 hr	.30	.0150
Can Opener	100	1 hr	.10	.0050
Carving Knife	90	1 hr	.09	.0045
Clock	2	1 hr	.002	.0010
* Clothes Dryer	4850	½ hr	2.43	.1215
Clothes Washer, automatic	510	1 hr	.51	.0255
Clothes Washer, non-automatic	285	1 hr	.29	.0145
* Coffeemaker, brew cycle	890	¼ hr	.22	.0110
* Coffeemaker, hold cycle	50	1 hr	.05	.0025
Dehumidifier	260	1 hr	.26	.0130
Dishwasher	1200	1 hr	1.20	.0600
Disposer	445	1 hr	.45	.0225
Egg Cooker	520	1 hr	.52	.0260
Fan, attic	370	1 hr	.37	.0185
Fan, circulating	90	1 hr	.09	.0045
Fan, furnace (⅓ horsepower)	300	1 hr	.30	.0150
Fan, rollaway	170	1 hr	.17	.0085
Fan, window	200	1 hr	.20	.0100
Floor Polisher	300	1 hr	.30	.0150
* Frypan	1200	½ hr	.60	.0300
Hair Dryer, blower	1000	1 hr	1.00	.0500
Heat Lamp	250	1 hr	.25	.0125
Humidifier	175	1 hr	.18	.0090
* Iron	1100	½ hr	.55	.0275
Microwave Oven	1500	1 hr	1.50	.0750
Mixer, hand	125	1 hr	.13	.0065
Mixer, stand	150	1 hr	.15	.0075
Radio	70	1 hr	.07	.0035
Radio/Record Player	110	1 hr	.11	.0055
* Range Bake Unit	2900	¼ hr	.73	.0365
Range Broil Unit	3375	1 hr	3.38	.1690
* Range Surface Unit, large (medium setting)	2200	½ hr	1.10	.0550
* Range Surface Unit, small (medium setting)	1275	½ hr	.64	.0320
Septic Tank Aerator (⅓ h.p.)	300	1 hr	.30	.0150
Sewing Machine	75	1 hr	.08	.0040
Shaver	15	1 hr	.02	.0010
Slow Cooker (high setting)	150	1 hr	.15	.0075
Slow Cooker (low setting)	75	1 hr	.08	.0040
Sun Lamp	280	1 hr	.28	.0140
Television, B&W, solid state	45	1 hr	.05	.0025
Television, Tube, solid state	100	1 hr	.10	.0050
Television, Color, solid state	145	1 hr	.15	.0075
Television, Color, tube	240	1 hr	.24	.0120
Toaster	1150	1 hr	1.15	.0575
* Toast-r-oven	1500	¼ hr	.38	.0190
Trash Compactor	400	1 hr	.40	.0200
Vacuum Cleaner	630	1 hr	.63	.0315
* Waffle Baker	1200	½ hr	.60	.0300
Light				
Incandescent, 100-watt bulb	100	1 hr	.10	.0050
Incandescent, 150-watt flood	150	1 hr	.15	.0075
Fluorescent, 40-watt tube with ballast	50	1 hr	.05	.0025
Fluorescent, 15-watt tube with ballast	18	1 hr	.02	.0010
Yard Light, 175-watt mercury bulb with ballast, automatic control	200	1 hr	.20	.0100

*Thermostatically controlled

Some appliances, such as a clock, fan, or washing machine, use electricity the entire time they are turned on. Other appliances such as an oven, iron, or frypan, cycle on and off. Estimates of "on" time are based on the time the heat element is on and will be less than the actual time the appliance switch is on.

For example, for every hour that an oven is baking, it is using electricity about 15 minutes. Therefore, the "on" time is 15 minutes or ¼ hour.

Operating costs of water-using appliances such as the dishwasher and clothes washer are low. But the additional cost of heating water must be figured in.



Power Use and You

by Wayne Fuchs,
Director of Member Services

After a cold and very long winter, we are all looking forward to a nice warm summer and fall.

With the winter of '77 and '78, we should all know what temperatures and conditions our homes will withstand and the operating cost of keeping our homes comfortable. We also found out where the cold air was coming in—doors, crawl spaces, windows and walls.

If the weather predictions are correct, they are forecasting cold winters for the next five years.

Many members are concerned about what to do in regard to heating and cooling their homes in the future and want to know if they will be able to pay the utility bills.

We have done some research on total electric homes and have determined an average cost of 71 cents per square foot for a 12-month period. This was done by taking the total electric bill for a 12-month period and dividing this amount into the square foot of the home.

If you are planning to build a new total electric home or would like to figure your present home for total electric use, multiply 75 cents by the square footage in your home. This would give you a nearly accurate figure as to what your electric bill would be for one year at the present rate. This will vary some according to the type of home you have, the location and the number of doors and windows in the home.

Example: an 1,800 square foot home at 75 cents per square foot should run about \$1,350 total electric bill for one year. This is an average and will vary according to the living conditions and size of your family.

You can check your home the same way if you have a different type of heating system by adding your fuel bills for one year and your electric bills for one year and divide this total by the square footage of your home.

In our research of homes, we found the cost per square foot varied from 55 cents to 95 cents per square foot.

What do you think your home cost you for the past 12 months?

Thanks to Members

In an unrelated matter, our expression of appreciation to members who helped your linemen or in some other way assisted your cooperative in its recovery from the Easter ice storm was printed in the April issue of *Rural Highlights*. We failed to mention the names of many members who helped in this effort: one of which was Carl Spengler who helped haul poles for our line crews during the emergency. Our sincere thanks to him and to you other loyal members whom we may have forgotten.

RECIPE

Cocktail Meatballs

- 1 lb. ground beef
- ½ c. dry bread crumbs or oatmeal
- 1/3 c. minced onions
- ¼ c. milk
- 1 egg

COOPERATIVE PROJECT															
T	I	N	T	O	W	E	R	S	U	R	V	E	S	E	
C	O	O	P	E	R	A	T	I	V	E	R	A	S	M	
D	N	E	R	F	O	U	R	C	O	U	N	T	Y	C	
E	S	M	O	S	P	E	A	R	E	R	S	I	L	O	
M	V	E	J	S	C	R	A	P	B	P	K	O	O	K	
O	S	P	E	A	K	E	R	S	E	O	L	A	S	R	
N	S	G	C	I	S	Y	U	G	O	S	R	R	T	K	
S	K	A	T	I	W	C	I	B	S	T	T	S	R	O	
T	S	N	H	E	H	P	L	O	E	V	R	E	O		
A	U	A	E	D	M	A	E	R	A	R	S	U	H	B	
P	R	M	O	M	R	R	U	C	O	S	H	O	C		
S	V	D	S	C	T	T	E	R	S	G	O	T	U	R	
N	E	A	S	O	I	S	U	R	V	E	R	Y	T	A	
E	Y	O	R	S	S	D	E	M	O	N	S	A	T	R	
K	S	L	A	T	E	P	S	S	M	A	R	G	M	O	
S	N	O	I	T	A	R	T	S	N	O	M	E	D	S	
B	O	K	B	O	O	K	U	E	O	R	S	R	P	T	
P	S	C	R	A	S	U	R	V	A	Y	C	H	A	R	

The words listed below can be found in the puzzle written vertically, diagonally, horizontally or backwards. This month's puzzle words relate to projects for the 4-H Cooperative Awards Program.

Posters	Tours	Scrapbook
Demonstrations	Speakers	Charts
Skills	Surveys	Programs

- 1 Tbs. dry parsley
- 1 tsp. salt
- 1/8 tsp. pepper
- ½ tsp. Worcestershire sauce

Mix ingredients and form meatballs with 1 tsp. of mixture. Brown (or cook uncovered in microwave 5 min.) Pour off fat and juices. Combine 12 oz. jar of chili sauce and a 10 oz. jar grape jelly. Pour over meatballs. Simmer about 30 minutes (10-12 minutes in microwave) stirring occasionally. Serve in chafing dish or fondue pot.



OPEN SOLAR EQUIPMENT PLANT—Manager Roy Goode attended the ribbon cutting ceremony and open house on May 1 of the new Sunduit Solar System Manufacturing plant in Virden, Illinois. State Senators, Representatives and guests heard Rep. Adeline Geo-Karis speak on "Solar Energy in Illinois." The new plant is manufacturing solar collection equipment for agricultural use as well as solar equipment for domestic hot water and residential commercial space heating. Shown from left are: Sam Snell, president of Sunduit Inc.; Rep. Geo-Karis of Zion, Rep. James Riley of Jacksonville, and Manager Roy Goode.

Test Your E.Q.*

*Energy Quotient

Take this quiz to check your knowledge and understanding of energy-environment issues. When you have marked your answers, look below to see how well you have done.



1. How much of the energy used in gas stoves supplies the pilot lights?
- 10%
 - 25%
 - 50%

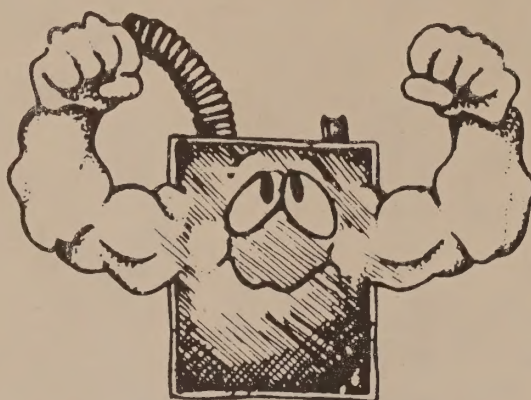
2. An incandescent lamp and a fluorescent lamp having the same light output: Which uses energy more efficiently?
- fluorescent
 - incandescent
 - both about the same efficiency

3. How many soft drink cans can be manufactured from recycled aluminum with the energy needed to make a single can from aluminum ore?
- three
 - five
 - twenty

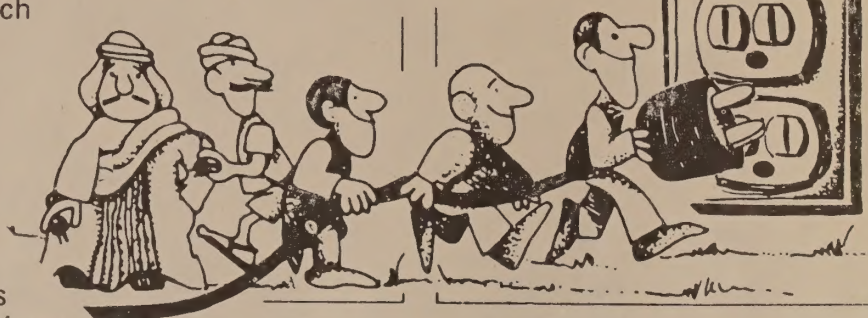
4. How long would a 100-watt light bulb burn on the energy needed to manufacture one throw-away soft-drink can or bottle?
- 10 minutes
 - 5 hours
 - 20 hours

5. How much of the energy stored in crude petroleum is lost between the oil well and a moving car?
- 20%
 - 60%
 - 90%

6. The heat energy of a gallon of gasoline is equivalent to
- 5 man-days of labor
 - 15 man-days of labor
 - 25 man-days of labor



7. How much faster than their rate of production are we consuming our fossil fuels?
- 10 times
 - 1,000 times
 - 1,000,000 times



8. What fraction of the world's energy consumption occurs in the U. S.?
- over 10%
 - over 20%
 - over 30%

9. Which of the following fuel resources is in greatest danger of exhaustion?
- coal
 - petroleum
 - natural gas

10. In the year 2000, American total energy demand will be:
- the same as today
 - twice as much today
 - three times as much as today

Score 1 for each correct answer.
0-5 Poor, 6-7 Fair, 8-10 Good.

- (c) Approximately half of the gas used in a gas stove is used to fuel the pilot lights because pilot lights burn continuously.
- (a) Fluorescent lights give off three to four times as much light per watt of electricity used as incandescent lamps do. One 40-watt fluorescent light gives more light than three 60-watt incandescent bulbs (and the annual savings may be as much as \$10).
- (c) Aluminum is a very energy intensive material with the largest share of the energy going to process the ore. Recycling is a great energy saver. The nation's total throwaway containers equivalent energy waste is equal to the output of 10 large nuclear power plants.

- (b) A 100-watt lamp could burn for 5 hours on the energy used to manufacture a disposable can or bottle.
- (c) Ninety-four percent of the energy in the gasoline from crude petroleum is lost in making your car move. The efficiencies of the most important steps where energy is lost are:

producing the crude oil	96%
refining	87%
gasoline transport	97%
engine thermal efficiency	29%
engine mechanical efficiency	71%
rolling efficiency	30%

The total efficiency of the system is found by multiplying the six factors together: 6%.

- (b) 15 man-days of labor. Said in another way, one barrel of oil contains heat energy equivalent to the energy of a man at hard labor for 2 years.
- (c) In less than 500 years man will have consumed essentially all of the coal, oil and gas that nature started forming 500,000,000 years ago. By comparison, that same fraction of a calendar year is approximately 30 seconds.
- (c) More than a third of the world's energy is consumed by the 6% of the world's population residing in the United States.
- (c) Natural gas reserves in the U.S. are expected to be exhausted in about 40 years. Petroleum should last for a century. Coal, 500 years or so.
- (b) For more than a century, American demand for energy has doubled, on the average, every 20-25 years.

Hotpoint FACTORY REBATE!

LIMITED OFFER!
UP TO \$50 CASH SAVINGS
DIRECT TO YOU FROM HOTPOINT!

Offer applies April 1 to May 31, 1978 on selected Hotpoint quality appliances shown.



Hotpoint

- ☐ Deluxe 20.8 cu. ft. no-frost refrigerator-freezer ☐ Adjustable meat storage ☐ 5 Split-adjustable glass shelves ☐ 5 Adjustable door shelves ☐ Energy saver switch.

Model CTF21GW

\$25 CASH
FACTORY
REBATE!

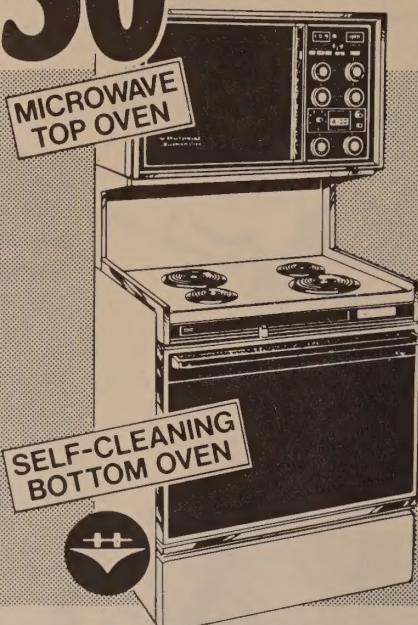


Hotpoint

- ☐ Deluxe self-cleaning 30" oven-range ☐ 3 Plug-in & 1 stay-up 3-in-1 "Power-Saver" Calrod® surface units ☐ Digital clock ☐ Full width cook-top lamp.

Model RB747V

\$50 CASH
FACTORY
REBATE!

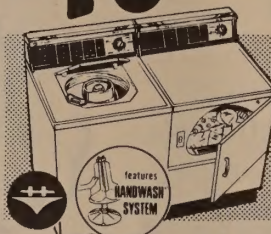


Hotpoint

- ☐ Deluxe 30" hi-lo oven-range ☐ Microwave oven top, cooks by time or temperature ☐ Self-cleaning oven on bottom, digital clock ☐ Automatic oven timer.

Model RH966G

\$40 CASH
FACTORY
REBATE
ON THE PAIR *



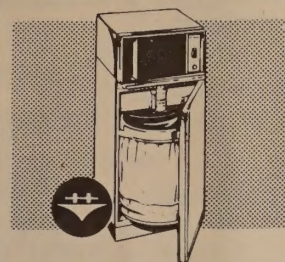
Hotpoint

- ☐ Deluxe top-of-the-line washer with 2 agitator Hand-wash* System ☐ Deluxe dryer with automatic Sensi-Dry™ and poly-knit cycle.

Washer Model WLW5704T Dryer Model DLB2654T

*\$20 on washer only if purchased separately.

\$20 CASH
FACTORY
REBATE!



Hotpoint

- ☐ Trash compactor reduces trash volume by approximately 80% ☐ Handy kitchen helper!

Model HCH611

\$20 CASH
FACTORY
REBATE!

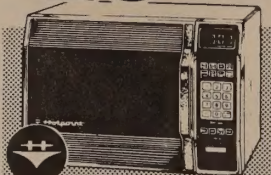


Hotpoint

- ☐ Deluxe Potwasher model ☐ 12 Cycle built-in dishwasher ☐ PowerScrub® cycle ☐ Lift-A-Level® upper rack ☐ Sani-cycle ☐ Crystal Clear™ rinse dispenser.

Model HDA912

\$25 CASH
FACTORY
REBATE!



Hotpoint

- ☐ Solid-state touch controls ☐ Cook fast by temperature with automatic control sensor ☐ Cook fast by time with the digital timer ☐ Cook slow with the automatic simmer.

Model RE944V

\$20 CASH
FACTORY
REBATE!



Hotpoint

- ☐ Deluxe 10 cycle portable potwasher dishwasher, converts to a built-in when ready ☐ PowerScrub® cycle ☐ Energy Saver Dry cycle ☐ Work surface top.

Model HDB877



**CUSTOMER CARE
... EVERYWHERE**
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